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сt Ье 14	α <i>11</i> 1	c ga e Gl	ıg at u Me	g gg t Gl	a ac y Th 15	T. GT	g at u Il	c go e Al	g to a Se	g ga r As 15	p Va	c ga 1 Gl	g at u Il	c cg e Ar	c gtc g Val 160
tae Ty:	c ga r As	c ac p Th	c ac r Th	c gc r Al 16	a GI	a ac u Th	t cg r Ar	c ta g Ty	c at r Me 17	t Va	t ct l Le	c cc u Pr	g ca o Gl	a cg n Ar	t ccc g Pro 5
gca Ala	g Glj	c ac y Th	c ga r Gl [.] 18	u Gr	c tg y Tr	g ag p Se:	c cag r Gli	g ga n Gl	u Gl	g ct n Le	t cag u Gli	g gag 1 Gl	g at u Il 19	e Vai	c acc l Thr
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Lys	Gly	Leu 35	Val	Pro	Asp	${ m Gl}_{f Y}$	Tyr 40	Val	Glu	Gly	Trp	Lys 45	Lys	Thr	Phe
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Ala	Val	Ala	Gln	Туr 85	Gly	Tyr	Leu	Gly	Pro 90	Gln	Gly	Glu	Tyr	Ile 95	Val
Ala	Val	Glu	Asp 100	Thr	Pro	Thr	Leu	Lys 105	Asn	Val	Ile	Val	Cys 110	Ser	Leu
Cys	Ser	Cys 115	Thr	Ala	Trp	Pro	Ile 120	Leu	Gly	Leu	Pro	Pro 125	Thr	Trp	Tyr
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Leu 145	Phe	Glu	Met	Gly	Thr 150	Glu	Ile	Ala	Ser	Asp 155	Val	Glu	. Ile	Arg	Val 160	
Tyr	Asp	Thr	Thr	Ala 165	Glu	Thr	Arg	Tyr	Met 170	Val	Leu	Pro	Gln	Arg 175		
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		acc Thr														96
		ctg Leu 35														144
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		ctg Leu														288
		gca Ala						_	_			_	_		_	336
		ccg Pro														384

		115					120					125				
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tac Tyr 145	Cys	cgc Arg	gga Gly	cga Arg	gtg Val 150	gga Gly	acc Thr	atc Ile	tct Ser	cat His 155	Arg	act Thr	acc Thr	gag Glu	aag Lys 160	480
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gaa Glu	ccg Pro	acg Thr	tac Tyr 180	cac His	gtg Val	aag Lys	ttc Phe	gac Asp 185	gcc Ala	gag Glu	gaa Glu	ttg Leu	ttc Phe 190	Gly	agc Ser	576
gac Asp	acc Thr	gac Asp 195	Gly ggc	ggc Gly	agc Ser	gtc Val	gta Val 200	gtc Val	gac Asp	ctt Leu	ttc Phe	gag Glu 205	ggt Gly	tac Tyr	ctc Leu	624
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Ala	Phe 50	Ser	Val	Asp	Glu	Val 55	Arg	Tyr	Val	Val	Glu 60	Arg	Met	Glu	Pro	
Arg 65	His	Tyr	Met	Met	Thr 70	Pro	Tyr	Tyr	Glu	Arg 75	Tyr	Val	Ile	Gly	Val 80	
Ala	Thr	Leu		Val 85	Glu	Lys	Gly	Ile	Leu 90	Thr	Gln	Glu	Glu	Leu 95	Glu	
Ser	Leu	Ala	Gly	Gly	Pro	Phe	Pro	Leu	Ser	Arg	Pro	Ser	Glu	Ser	Glu	

			100					105					110	1		
Gly	Arg	Pro 115	Ala	Pro	Val	Glu	Thr 120	Thr	Thr	Phe	Glu	. Ile 125		Gln	. Arg	
Val	Arg 130	Val	Arg	Asp	Glu	Tyr 135	Val	Pro	Gly	His	Ile 140		Met	Pro	Ala	
Tyr 145	Cys	Arg	Gly	Arg	Val 150	Gly	Thr	Ile	Ser	His 155	Arg	Thr	Thr	Glu	Lys 160	
Trp	Pro	Phe	Pro	Asp 165	Ala	Ile	Gly	His	Gly 170	Arg	Asn	Asp	Ala	Gly 175	Glu	
Glu	Pro	Thr	Tyr 180	His	Val	Lys	Phe	Asp 185	Ala	Glu	Glu	Leu	Phe 190	Gly	Ser	
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Glu	Pro 210	Ala	Ala													
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						gcg Ala										96
						ggt Gly										144
Glu						agg Arg 55										192

	g acc o Thr															240
gc Al	g gtt a Val	gcc Ala	cag Gln	tac Tyr 85	gga Gly	tac Tyr	ctg Leu	ggc	ccc Pro 90	cag Gln	Gly	gag Glu	tac Tyr	atc Ile 95	gtg Val	288
	a gtc a Val															336
	tca Ser															384
	g agt s Ser 130													_	_	432
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	a ggc a Gly															576
	g gac s Asp														tga	624
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Lys	s Gly	Leu 35	Val	Pro	Asp	Gly	Tyr 40	Val	Glu	Gly	Trp	Lys 45	Lys	Thr	Phe	

Glu Glu Asp Phe Ser Pro Arg Arg Gly Ala Glu Leu Val Ala Arg Ala 50 55 60

Trp Thr Asp Pro Glu Phe Arg Gln Leu Leu Leu Thr Asp Gly Thr Ala 65 70 Ala Val Ala Gln Tyr Gly Tyr Leu Gly Pro Gln Gly Glu Tyr Ile Val 85 90 Ala Val Glu Asp Thr Pro Thr Leu Lys Asn Val Ile Val Cys Ser Leu 100 105 Cys Ser Cys Thr Ala Trp Pro Ile Leu Gly Leu Pro Pro Thr Trp Tyr 115 Lys Ser Phe Glu Tyr Arg Ala Arg Val Val Arg Glu Pro Arg Lys Val Leu Ser Glu Met Gly Thr Glu Ile Ala Ser Asp Val Glu Ile Arg Val 155 Tyr Asp Thr Thr Ala Glu Thr Arg Tyr Met Val Leu Pro Gln Arg Pro 170 Ala Gly Thr Glu Gly Trp Ser Gln Glu Gln Leu Gln Glu Ile Val Thr 180 1.85 Lys Asp Cys Leu Ile Gly Val Ala Val Pro Gln Val Pro Thr Val 195 200 <210> 7 <211> 639 <212> DNA <213> Rhodococcus erythropolis <220> <221> CDS <222> (1)..(639) <223> atg gat gga gta cac gat ctt gcc gga gtt caa ggc ttc ggc aaa gtc 48 Met Asp Gly Val His Asp Leu Ala Gly Val Gln Gly Phe Gly Lys Val ceg cat ace gtc aac gcc gac ate ggc ecc ace tte cac gcc gag tgg 96 Pro His Thr Val Asn Ala Asp Ile Gly Pro Thr Phe His Ala Glu Trp 25 gaa cac ctg ccg tac agc ctg atg ttc gcc ggt gtc gcc gaa ctc ggg 144 Glu His Leu Pro Tyr Ser Leu Met Phe Ala Gly Val Ala Glu Leu Gly

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cgc cac tac atg Arg His Tyr Met 65	atg acc ccg tac Met Thr Pro Tyr 70	c tac gag agg tac r Tyr Glu Arg Tyr 75	gtc atc ggc gtc Val Ile Gly Val 80	240
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agc ctt gca ggg Ser Leu Ala Gly 100	gga ccg ttc cca Gly Pro Phe Pro	a ctg tcg cgg ccc o Leu Ser Arg Pro 105	agc gaa tcc gaa Ser Glu Ser Glu 110	336
ggg cgt ccg gca Gly Arg Pro Ala 115	ccc gtc gag acg Pro Val Glu Thr 120	g acc acc ttc gaa r Thr Thr Phe Glu 0	atc ggt cag cga Ile Gly Gln Arg 125	384
gta cgc gtg cgc Val Arg Val Arg 130	gac gag tac gtt Asp Glu Tyr Val 135	t ccg ggg cat att l Pro Gly His Ile 140	cga atg cct gcg Arg Met Pro Ala	432
tac tgc cgc gga Tyr Cys Arg Gly 145	cga gtg gga acc Arg Val Gly Thr 150	c atc tct cat cgg r Ile Ser His Arg 155	act acc gag aag Thr Thr Glu Lys 160	480
tgg cca ttt ccc Trp Pro Phe Pro	gac gca atc ggc Asp Ala Ile Gly 165	c cac ggg cgc aac y His Gly Arg Asn . 170	gac gcc ggc gaa Asp Ala Gly Glu 175	528
		c gcc gcc gag gaa e Ala Ala Glu Glu : 185		576
		a gtc gac ctt ttc g l Val Asp Leu Phe 0		624
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Pro His Thr Val Asn Ala Asp Ile Gly Pro Thr Phe His Ala Glu Trp

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Ala Phe Ser Val Asp Glu Val Arg Tyr Val Val Glu Arg Met Glu Pro 50 55 60

Arg His Tyr Met Met Thr Pro Tyr Tyr Glu Arg Tyr Val Ile Gly Val 65 70 75 80

Ala Thr Leu Met Val Glu Lys GLy Ile Leu Thr Gln Asp Glu Leu Glu 85 90 95

Ser Leu Ala Gly Gly Pro Phe Pro Leu Ser Arg Pro Ser Glu Ser Glu
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Gly Arg Pro Ala Pro Val Glu Thir Thr Thr Phe Glu Ile Gly Gln Arg 115 120 125

Val Arg Val Arg Asp Glu Tyr Val Pro Gly His Ile Arg Met Pro Ala 130 135 140

Tyr Cys Arg Gly Arg Val Gly Thr Ile Ser His Arg Thr Thr Glu Lys 145 150 155 160

Trp Pro Phe Pro Asp Ala Ile Gly His Gly Arg Asn Asp Ala Gly Glu
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gcg Ala	ccg Pro	gtc Val	tcc Ser 20	gac Asp	cgg Arg	gcg Ala	tgg Trp	gcc Ala 25	ctg Leu	ttc Phe	cgc Arg	gca Ala	cto Leu 30	gac Asp	ggt Gly		96
aag Lys	gga Gly	ttg Leu 35	gta Val	ccc Pro	gac Asp	ggt Gly	tac Tyr 40	gtc Val	gag Glu	gga Gly	tgg Trp	aag Lys 45	aag Lys	acc Thr	ttc Phe	1	L44
gag Glu	gag Glu 50	gac Asp	ttc Phe	agt Ser	cca Pro	agg Arg 55	cgc Arg	gga Gly	gcg Ala	gaa Glu	ttg Leu 60	gtc Val	gcg Ala	cgg Arg	gcg Ala	1	_92
tgg Trp 65	acc Thr	gac Asp	ccc Pro	gag Glu	ttc Phe 70	cgg Arg	cag Gln	ttg Leu	ctt Leu	ctc Leu 75	acc Thr	gac Asp	ggt Gly	acc Thr	gcc Ala 80	2	40
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Trp Thr Asp Pro Glu Phe Arg Gln Leu Leu Leu Thr Asp Gly Thr Ala 65 70 75 80

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Ala Val Glu Asp Thr Pro Thr Leu Lys Asn Væl Ile Val Cys Ser Leu 100 105 110

Cys Ser Cys Thr Ala Trp Pro Ile Leu Gly Leu Pro Pro Thr Trp Tyr 115 120 125

Lys Ser Phe Glu Tyr Arg Ala Arg Val Val Arg Glu Pro Arg Lys Val 130 135 140

Leu Ser Glu Met Gly Thr Glu Ile Ala Ser Asp Val Glu Ile Arg Val 145 150 155 160

Tyr Asp Thr Thr Ala Glu Thr Arg Tyr Met Val Leu Pro Gln Arg Pro 165 170 175

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gaa cac ctg Glu His Leu 35	ccg tac ago Pro Tyr Se:	c ctg atg tt r Leu Met Ph 40	tc g⊂c ggt he Ala Gly	gtc gcc gaa c Val Ala Glu Le 45	cc ggg 144 eu Gly
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agc ctt gca Ser Leu Ala	ggg gga ccg Gly Gly Pro 100	g ttc cca ct o Phe Pro Le 10	eu Ser Arg	cca agc gaa to Pro Ser Glu Se 110	c gaa 336 er Glu
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			sp Ala Glu (gaa ttg ttc gg Glu Leu Phe Gl 190	
gac acc gac Asp Thr Asp 195	ggc ggc agc Gly Gly Ser	gtc gta gt Val Val Va 200	c gac ctt i 11 Asp Leu 1	ttc gag ggt ta Phe Glu Gly Ty 205	c ctc 624 r Leu

190

639

13

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Val Asp Arg Val Val 35	l Ser Tyr Tyr 40	Glu Asn Glu Ile	e Gly Pro Met 45	Gly
Gly Ala Lys Val Val	l Ala Lys Ser 55	Trp Val Asp Pro	o Glu Tyr Arg	Lys
Trp Leu Glu Glu Asp 65	Ala Thr Ala 70	Ala Met Ala Ser 75	Leu Gly Tyr	Ala 80
Gly Glu Gln Ala His 85	s Gln Ile Ser	Ala Val Phe Asn 90	Asp Ser Gln 95	Thr
His His Val Val Val	. Cys Thr Leu	Cys Ser Cys Tyr 105	Pro Trp Pro	Val
Leu Gly Leu Pro Pro 115	Ala Trp Tyr 120	Lys Ser Met Glu	Tyr Arg Ser 125	Arg
Val Val Ala Asp Pro 130	Arg Gly Val 135	Leu Lys Arg Asp		Asp
Ile Pro Asp Glu Val	. Glu Val Arg	Val Trp Asp Ser	Ser Ser Glu	Ile

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Arg Val Gln Glu Ile Leu Glu Gly Arg Tyr Thr Asp Arg Asn Pro Ser 100 105

Arg Lys Phe Asp Pro Ala Glu Ile Glu Lys Ala Ile Glu Arg Leu His

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Gly Asp Lys Val Lys Val Lys Asn Met Asn Pro Leu Gly His Thr Arg 150 155

Cys Pro Lys Tyr Val Arg Asn Lys Ile Gly Glu Ile Val Thr Ser His 165 170

Gly Cys Gln Ile Tyr Pro Glu Ser Ser Ser Ala Gly Leu Gly Asp Asp 180 185

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									acg Thr								672
	_		_	_	_	_	_	_	ccc Pro					_			720
		_							gag Glu								768

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ccc cgt gac gag Pro Arg Asp Glu				
gac aag tgg gaa Asp Lys Trp Glu 340				
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Arg Arg Val Ala V 35	Val Ile Val Asn 40	Asp Met Ser G	Glu Ile Asn Ile 45	Asp
Ser Ala Glu Val (Glu Arg Glu Ile	Ser Leu Ser A	Arg Ser Glu Glu	Lys

50 55 60

Leu Val Glu Met Thr Asn Gly Cys Ile Cys Cys Thr Leu Arg Glu Asp 65 70 75 80

Leu Leu Ser Glu Ile Ser Ala Leu Ala Ala Asp Gly Arg Phe Asp Tyr 85 90 95

Leu Leu Ile Glu Ser Ser Gly Ile Ser Glu Pro Leu Pro Val Ala Glu 100 105 110

Thr Phe Thr Phe Ile Asp Thr Asp Gly His Ala Leu Ala Asp Val Ala 115 120 125

Arg Leu Asp Thr Met Val Thr Val Val Asp Gly His Ser Phe Leu Arg 130 135 140

Asp Tyr Thr Ala Gly Gly Arg Val Glu Ala Asp Ala Pro Glu Asp Glu 145 150 155 160

Arg Asp Ile Ala Asp Leu Leu Val Asp Gln Ile Glu Phe Ala Asp Val 165 170 175

Ile Leu Val Ser Lys Ala Asp Leu Val Ser His Gln His Leu Val Glu 180 185 190

Leu Thr Ala Val Leu Arg Ser Leu Asn Ala Ser Ala Ala Ile Val Pro 195 200 205

Met Thr Leu Gly Arg Ile Pro Leu Asp Thr Ile Leu Asp Thr Gly Leu 210 215 220

Phe Ser Leu Glu Lys Ala Ala Gln Ala Pro Gly Trp Leu Gln Glu Leu 225 230 235 240

Gln Gly Glu His Ile Pro Glu Thr Glu Glu Tyr Gly Ile Ser Ser Val 245 250 255

Val Tyr Arg Glu Arg Ala Pro Phe His Pro Gln Arg Leu His Asp Phe 260 265 270

Leu Ser Ser Glu Trp Thr Asn Gly Lys Leu Leu Arg Ala Lys Gly Tyr 275 280 285

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- Thr Trp Ser Asp Pro Leu Gly Val Gly Tyr Thr Asp Gln Thr Val 385 390 395